UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

AUG 09 1994

CM-29A

MEMORANDUM

SUBJECT: Request for Review and Comment on NEIC Draft Project Plan for USS-Gary Works

FROM: Thomas J. Martin 8/11/94
Associate Regional Counsel

TO: Addressees (see below)

Attached is NEIC's draft project plan for inspecting USS-Gary Works. It outlines the NEIC's understanding of what the Region's information needs are at the facility and how it intends to proceed with its investigation to satisfy these needs. In general, it envisions a two-part on-site investigation, the first part (September) focussing on plant processes, wastewater treatment, and groundwater monitoring evaluations; and the second part (November/December) focussing on multi-media compliance determinations. Please give me your comments on the attached no later than COB August 15, 1994. In particular, I am interested in the second phase, the "multi-media compliance determination", particularly Clean Air Act investigatory/compliance monitoring issues in light of the State's apparent intention to instigate an encompassing civil action addressing air sources at the facility.

If you have any questions, or would like to set up a meeting concerning this matter, I can be reached at 886-4273.

Attachment

Addressees:
Field (CM-29A)
Kovach (WC-15J)
Slaughter (HRE-8J)
Cooper (SPB-14J)
Felix (SPP-14J)
Keegan (AT-18J)

DRAFT PROJECT PLAN*
U. S. STEEL - GARY WORKS
GARY, INDIANA

INTRODUCTION

The U.S. Steel-Gary Works is a fully integrated steelmaking facility located on the south shore of Lake Michigan in Gary, Indiana [Figure 1]. Construction of the plant was begun in 1906 and steel production commenced in 1909. Currently, the Gary Works has 57 production units situated on nearly 4,000 acres of land, and employs more than 7,000 people. The principal product is flat rolled steel sold in a variety of forms. Major process operations include coking and by-product recovery, sintering, ironmaking in blast furnaces, steelmaking in basic oxygen furnaces, and finishing mills (hot and cold forming, tin plating, and galvanizing).

Plant operations and waste streams are subject to the major environmental statutes, including the Clean Air Act (CAA), Resource Conservation and Recovery Act (RCRA), Clean Water Act CWA, Toxic Substances Control Act (TSCA), and Emergency Planning and Community Right-to-Know Act (EPCRA). Since the late 1980's, numerous environmental problems have been identified at the plant by EPA Region 5 and the Indiana Department of Environmental Management (IDEM). These include problems related to air emissions, hazardous waste management, wastewater discharges and sediment contamination in the Grand Calumet River. For the most part, these problems have been or are being addressed through various enforcement actions by both Region 5 and IDEM. Region 5 and U.S. Steel (USS) are currently negotiating a RCRA Corrective Action Order and an amendment to the Consent Decree addressing wastewater discharges and the Grand Calumet River sediment contamination.

* *Subject to revision*

DRAFT

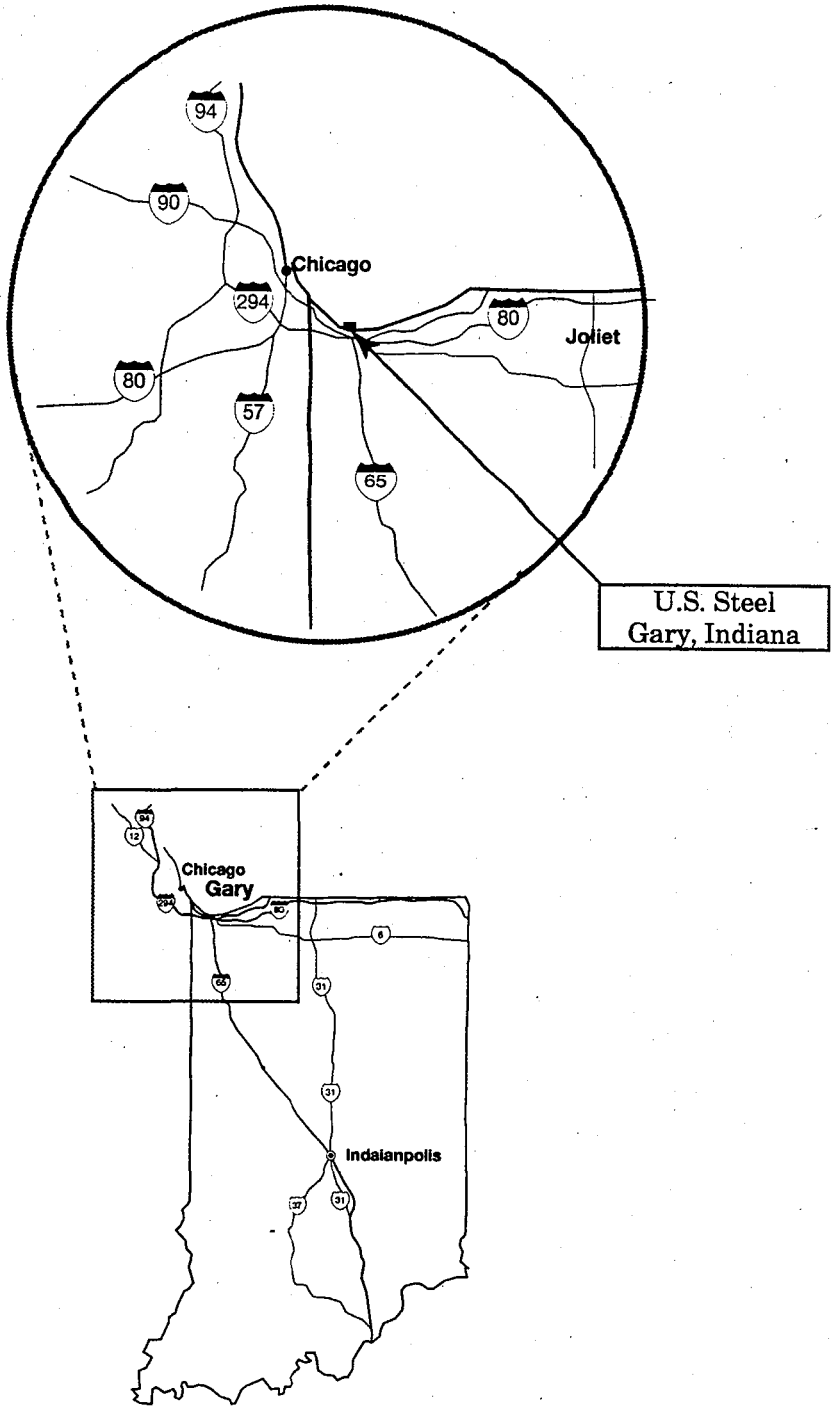

Figure 1
LOCATION MAP
U.S. Steel
Gary, Indiana

In support of current and pending enforcement actions, EPA Region 5 requested the National Enforcement Investigations Center (NEIC) to conduct a multi-media investigation of the Gary Works. Through discussions with Region 5 and IDEM personnel, four principal objectives were identified, 1) to identify waste streams generated from major plant operations (including those from contractor operations), and the respective waste management practices, 2) to determine the causes of continued non-compliance of discharges through outfalls 033 and 034 with the state-issued National Pollutant Discharge Elimination System permit, 3) to assess required groundwater monitoring systems, data quality, and the extent and magnitude of groundwater contamination at the facility; and (4) to determine compliance with selected environmental laws and regulations at specific operations.

The primary purpose of the waste stream identification and management assessment is to ensure that all regulated and environmentally significant waste streams, as well as current waste management practices are identified. A secondary purpose is to also identify any solid waste management units (SWMUs) not previously identified*, that may be releasing hazardous waste or hazardous constituents to the environment.** Specifically, NEIC will conduct a process evaluation to:

- Determine the types, sources, and, where possible, quantities of wastes generated

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* *Those previously identified are described in the "Preliminary Review/Visual Site Inspection Report, United States Steel Corporation, Gary Works Facility", prepared by A. T. Kearney, Inc, dated June 30, 1987.*

** *Hazardous wastes and hazardous constituents are defined and listed, respectively, in 40 CFR Part 261*

- Identify waste handling and management procedures for Gary Works waste streams (including those generated by contractors)

- Identify active and inactive SWMUs containing or potentially containing hazardous waste or hazardous constituents

- Provide information to assist EPA Region 5 in determining whether further site investigation by USS is necessary to identify, characterize and remediate releases of hazardous waste or hazardous constituents

Region 5 and IDEM want to identify the causes for continued non-compliance by discharges through Outfalls 33 and 34, but have been hampered by a lack of knowledge about wastewater sources and whether upstream treatment systems are properly designed and operated. During the investigation, NEIC will identify the wastewater sources (including potentially contaminated groundwater inflow) and determine if the related treatment systems are properly designed, operated and maintained.

USS has installed several groundwater monitoring systems at the Gary Works, as required by federal and state regulations, as well as a state-issued administrative order (H-015, dated November 30, 1987). Well construction, in conformance with regulatory and order requirements, has not been verified. Monitoring data from the wells, which may be germane to the ongoing corrective action order negotiations, have not been compiled and evaluated. NEIC will obtain construction and completion information on existing wells, and monitoring/testing procedures to aid in assessing the quality of the monitoring system and resulting data. Available groundwater data will be obtained, and compiled to aid in assessing the extent and magnitude of groundwater contamination.

Laws, regulations, and operations to be addressed during the multi-media compliance inspection portion of the investigation will be determined after completing the first on-site inspection, as discussed below. The anticipated regulations to be addressed could include, but not be limited to:

- Air pollution control regulations, including National Emission Standards for Hazardous Air Pollutants (NESHAP) and New Source Performance Standards (NSPS)
- Hazardous waste management regulations, including Land Disposal Restrictions (LDR)
- Water pollution control regulations
- TSCA regulations applicable to polychlorinated biphenyls (PCBs)
- Regulations promulgated under authority of EPCRA Section 313
- Regulations promulgated under authority of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA)

In addition, NEIC personnel will document facility activities/conditions that, although not specifically regulated, have or could potentially impact the environment. This will include obtaining information for assessing whether the USS environmental management system is effective in ensuring environmental protection and compliance with applicable regulations.

INVESTIGATIVE METHODS

To accomplish the investigation objectives, NEIC will conduct a two-part on-site investigation. The first part will focus on the processes, wastewater treatment, and groundwater monitoring evaluations; the second part will focus on multi-media compliance determinations. Detailed inspection agendas will be prepared before each on-site inspection.

A reconnaissance inspection of the Gary Works was conducted during May 11 and 12, 1994 to view operations and discuss the NEIC investigation with USS personnel. The company agreed to provide NEIC with detailed process flow diagrams for 11 USS operations and 10 on-site contractor operations before the first inspection. The flow diagrams and supplemental information are to indicate major units and waste streams generated, as well as their disposition.

During the on-site inspections, plant operations and regulated activities will be discussed in-depth with facility personnel, facility documents will be reviewed and copied, and the processing areas, material storage areas and waste management areas will be examined.

Information gathered during the investigation may indicate areas where hazardous or other regulated wastes/substances have been managed and that releases may have occurred. The information may also indicate that hazardous air pollutant sources are not controlled, monitored or properly maintained. Sampling or monitoring in these areas may be necessary to document the release or non-compliance. As a result, NEIC may collect samples for analysis at the NEIC laboratory.

Upon completion of each of the two planned on-site inspections, NEIC investigators will brief appropriate Regional program, Office of Regional Counsel, and IDEM personnel regarding preliminary findings.

A draft report will be provided to regional personnel for review and comment within approximately eight weeks after completion of the second on-site inspection. The final report will be completed upon receipt and incorporation of Regional comments. Other documents related to investigation findings will be prepared, as necessary.

EVIDENCE MANAGEMENT/QUALITY CONTROL PROCEDURES

The NEIC Policies and Procedures Manual, including chain-of-custody and document control procedures*, and the NEIC Quality Management Plan, where applicable, will be followed during the investigation. Documents and records obtained from the company will be uniquely numbered and listed on a document log. A photograph log will be maintained. A copy of the document and photograph logs, with a receipt for samples/documents, will be offered to the company before completion of the on-site inspection. Any documents declared to be CBI pursuant to 40 CFR Part 2 will be so noted on the log and secured appropriately. TSCA CBI will be handled and maintained separately following TSCA security and login procedures.

Specific sampling activities, if any, cannot be identified before the on-site inspection. Consequently, information regarding specific sampling procedures is not provided here. If hazardous materials and/or waste stream sampling is required, as determined by the inspection team, protocol selections will be based on site conditions and discussions with various NEIC and/or regional personnel, as appropriate. Only sampling requiring Level C protective equipment or less will be conducted during this inspection. If a greater level of protection is required, or the safety of the sampling is in question (such as presence of explosives, etc.), the need and specific arrangements for such sampling will be discussed and agreed upon between NEIC and regional personnel.

NEIC will follow appropriate chain-of-custody, quality assurance, and standard operating procedures during sample handling. Split samples will be offered to the facility. Analysis will be conducted by the NEIC laboratory in Denver

* *NEIC Policies and Procedures Manual, revised August 1991.*

following quality assurance/quality control (QA/QC) procedures appropriate for the type(s) of sample(s) taken. Data quality goals for the measurement data in this project are based upon the laws and implementing regulations, described above. Sampling/ analytical methods will be selected so as to assure that the data obtained achieve data quality goals and will assist in evaluating compliance.

SAFETY REQUIREMENTS

Safety procedures will comply with all appropriate USS safety practices, the attached NEIC Site Health and Safety Plan [Attachment A], and applicable EPA and NEIC safety procedures. These procedures are based on the EPA 1440 - Occupational Health and Safety Manual (1986 edition), Agency orders, applicable provisions of the NIOSH/OSHA/USCG/EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985 edition), and "EPA Standard Operating Safety Guides" (1992 edition). For most plant areas, hard hats, safety glasses, log-sleeved shirts or coveralls, and steel-toed shoes are needed.

INVESTIGATION SCHEDULE

• Site reconnaissance inspection (Completed)	May 11-12, 1994
• Process, Wastewater Treatment, and Groundwater Monitoring Site Inspection	September 12-23, 1994
• Multi-Media Compliance Site inspection	Two weeks in mid-November or early December 1994

NEIC SITE HEALTH AND SAFETY PLAN

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General Information

1. Project Title: USX Multi-Media Inspection — Project Number: N41/N42-05
2. Location: Gary, Indiana
3. Description of Field Activities: Site inspection
4. Date of Field Activities: September 12-23, 1994
5. NEIC Personnel:

Steve Sisk	**Project Coordinator**
Bob Gosik, Margo Dusenbury, Brian McKeown	

6. Contractor Personnel: Must be OSHA certified per 29CFR1910.120.
   Obtain list of personnel, duties or work to be performed, and copies of training certificates.

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Emergency Information

7. Ambulance: — Phone: 911
8. Hospital: Gary Methodist Hospital — Phone: 886-4710
   600 Grant Street (emergency room)
   Gary, Indiana
9. Emergency Route: Go south through main plant gate, then south 1.5 miles to Emerson Street. Right three blocks to hospital.
10. Fire Department: — Phone: 911
11. Police: — Phone: 911
12. Poison Control Center: Gary Methodist Hospital — Phone: 886-4710
13. Site Emergency Notification/Evacuation Method: Follow company directions.
14. NEIC Health and Safety Officer: **Steve Fletcher** - 303-236-5111
15. Radiation Safety Assistance:
    Jed Harrison, Director
    Office of Radiation Programs
    Las Vegas Facility
    702-798-2476

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Hazard Evaluation

16. Check all known or potential hazards: __Radiation _X_Toxics __Fire/Explosion __O2 Deficiency _X_Corrosives _X_Noise _X_Physical __Biological __Dusts _X_Heat/Cold Stress

NOTE: DISCUSS HAZARDS AND PRECAUTIONS IN DETAIL IN WORK PLAN BELOW.

17. Specify unusual working conditions/limitations (excavations, confined spaces, lagoons, elevated, surfaces, weather, darkness, etc.)*

NONE

* Attach specific hazard management plans, if applicable.

18. Anticipated Chemical Hazards:

Chemical	TLV	Route of Exposure	Acute Symptoms	Odor Level	Odor/Visual Description
Ammonia	25ppm	Inhalation, contact, and/or ingestion	Eye, nose, throat irritation, chest pain, pink forthy sputum	17 ppm	Pungent, suffocating odor
Hydrochloric acid	5 ppm ceiling	Inhalation, contact, and/or ingestion	Inflamation of nose, throat, larynx; cough, burns throat, choking	1 ppm	Colorless to slightly yellow gas with a pungent odor
Coke oven emissions	0.15 mg/m^3	Inhalation, contact, and/or ingestion	Dermatitis, bronchitis	--	Black or dark brown "smoke"

Work Plan

19. List tasks, anticipated hazards checked above, and control measures which will be taken, including levels of protection:

Task	Hazards	Level of Protection (A,B,C,D) and Control Measures
1. Inspection of selected process areas	1. Noise, potential acid mists and toxic airborne contaminants; Heat stress	1. Level D plus ear protection; have Level C available - full face, combination cartridge APR Ensure adequate liquid intake, take frequent breaks

20. Health Hazard Monitoring Plan:

Constituent	Type of Sample	Frequency	Instrument	Notes
Not applicable				

21. Site Control/Security Measures: Company will provide site security.

22. Decontamination Procedures (personnel hygiene, contaminated clothing, equipment, instruments, etc.): Shower after on-site work. Bag any contaminated clothing for decon at NEIC, if necessary, but decon is not anticipated. Will observe good personal hygiene practices and follow NEIC decontamination SOP, as appropriate.

23. Disposal Procedures (contaminated equipment, supplies, decontamination solutions,etc.): See No. 22 above. Will observe NEIC disposal SOP, as appropriate.

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Approvals

This site HASP has been reviewed and constitutes the minimum anticipated safety requirements for personnel engaged in field activities at this project site. However, the Project Coordinator has the authority to change these requirements, based upon the conditions present at the site.

Approved by:

24. Project Coordinator: _____ Date: 8/2/94

25. ~~Supervisor~~: _____ Date: 8/1

26. Health & Safety Officer: _____ Date: _____

SITEHASP.SAF: 03/94